

200 2/2/95 A/DAC #34

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

**PETITION FOR REVIVAL OF AN
APPLICATION FOR PATENT ABANDONED
UNINTENTIONALLY UNDER 37 C.F.R. 1.137(b)**

Docket Number:
17380/1206 (PD90-0282)

Application Number
08/047,164

Filing Date
April 12, 1993

Examiner
G. Ray

Art Unit
2305

Invention Title
HIGH SPEED BUS SYSTEM

Inventor(s)
RAMANUJAN et al.

Address to:

Assistant Commissioner for Patents
Washington D.C. 20231
Box DAC

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on

Date: June 26, 1997

Reg. No. 36,197

Signature:

Jong H. Lee

SIR:

The above-identified application became unintentionally abandoned for failure to respond to an Advisory action dated December 22, 1994.

The abandonment date of this application is February 1, 1995.

The applicants hereby petition to revive the above-identified application for the purpose of establishing continuity in order to effect the filing of a continuing application.

1. The Petition fee of \$1,290.00 is authorized to be charged to Kenyon &

Kenyon's Deposit Account No. 11-0600. This Petition is being filed in duplicate.

2. This petition is accompanied by the following:

08/11/1997 GDUCKETT 00000042 110600 08047164
01 FC:141 1290.00 CH

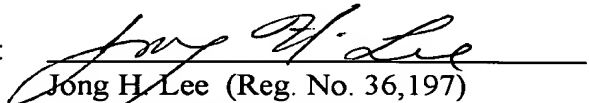
- a. Petition under 37 C.F.R. § 1.183 to waive the one-year time period for filing a petition to revive, and authorization to charge the \$130 fee under 37 C.F.R. § 1.17(h) to Deposit Account No. 11-0600.
- b. A Terminal Disclaimer;
- c. 37 C.F.R. 3.73(b) Certificate and copies of the recorded assignments; and
- d. A Request for filing a Rule 62 File-Wrapper-Continuation Application and a request to enter the Amendment under 37 C.F.R. § 1.116 filed on November 30, 1994, but unentered, in the parent application, Serial No. 08/047,164. The Request for filing a Rule 62 File-Wrapper-Continuation Application is contingent upon revival of the above-identified abandoned application.

3. Verified Statement - The delay in prosecution which caused the abandonment of this application was unintentional.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Dated: June 26, 1997

By:


Jong H. Lee (Reg. No. 36,197)
KENYON & KENYON
One Broadway
New York, N.Y. 10004
(212) 425-7200 (telephone)
(212) 425-5288 (facsimile)

Digital Equipment Corporation
111 Powdermill Road
Maynard, Massachusetts 01754-1499
508.493.5111

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digital

September 7, 1994

Kenyon & Kenyon
Attorneys at Law
One Broadway
New York, N.Y. 10004

Attention: Joan E. Federici

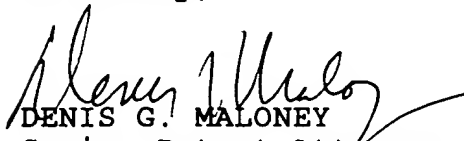
Subject: Digital Ref.: PD90-0282 CONT1
U.S.S.N. 08/047,164
Your Ref.: 17380/1206

Dear Joan,

Regarding our letter of July 28, 1994 which is in response to your letter of July 15, 1994, addressed to Denis G. Maloney, Digital has elected to handle this matter directly. Therefore, all correspondence in connection with the above-mentioned case should be forwarded directly to Digital at the above address. Digital will file a change of correspondence address form in the U.S.P.T.O.

If you have any questions, please do not hesitate to contact me at (508) 493-9233.

Sincerely,


DENIS G. MALONEY
Senior Patent Attorney

DS:mrh

NEW YORK, N.Y. 10004

Client # 17380 Matter # 1206 Case # PD 90-0282 Attorney(s) RTT, LITKAM
Client DIGITAL EQUIPMENT CORPORATION
Inventor(s)/Applicant(s) RAMANUJAN, RAJ; SAMARAS, WILLIAM A;
DEROSA, JOHN; KELLER, JAMES B.; STEWART, ROBERT E.
Title of Invention HIGH SPEED BUS SYSTEM

PATENT NO. _____ ISSUED _____ EXPIRES _____

Date of Off Actions	Description	Response Due	Response Filed	Atty
JUNE 1 93	FILING RECEIPT REC'D			
7/2/93	3 mth. Amendment	10/4/93	10/4/93 MAIL CERTIFICATE	FLD
12/8/93	3 mth. Amendment Req. for Ext. of Time	3/8/94	4/8/94 MAIL CERTIFICATE	CSK
6/30/94	Rule 116 Amendment Due	8/30/94	8/30/94 MAIL CERTIFICATE	CSK
6/30/94	3 Mo. Notice of Appeal	9/30/94		
12-22-94	Advisory Action			
Client Will Handle				

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Raj Ramanujan, et al.

Serial No.: 08/047,164

Group Art Unit: 2305

Filed: April 12, 1993

Examiner: Ray, G.

Title: High Speed Bus System

I hereby certify that this correspondence is being deposited with the United States Postal Service as FIRST CLASS MAIL in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on:

November 30, 1994
Date of mailing

James M. Carroll
Signature

* * *

PETITION FOR EXTENSION OF TIME

Hon. Commissioner of Patents and Trademarks
Washington, DC 20231

Sir:

Applicant hereby petitions for a two-month extension of time to respond to the outstanding Office Action, dated June 30, 1994. The new period for response will expire November 30, 1994.

The Commissioner is hereby authorized to charge the extension fee for this Petition to the Digital Equipment Corporation Deposit Account No.: 04-1079 in the amount of \$360.00. A duplicate copy of this sheet is enclosed.

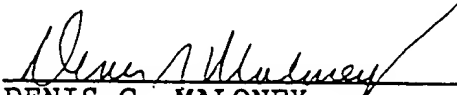
In the event the requested extension of time is insufficient, consider this as a Petition for an extension for the required period and charge the fee required to Digital Equipment Corporation Deposit Account No.: 04-1079.

A response to the outstanding Office Action is being filed herewith.

Respectfully submitted,

DIGITAL EQUIPMENT CORPORATION

By:


DENIS G. MALONEY
Reg. No. 29,670
Attorney for Assignee

Date: November 30, 1994

Digital Equipment Corporation
111 Powdermill Road, MS02-3/G3
Maynard, Massachusetts 01754-1499
(508) 493-9233

DGM:ds

Serial No. 08/047,164 Express Label No. _____
File Date April 12, 1993

Commissioner of Patents & Trademarks
Washington, D.C. 20231

Docket No. PD90-0282

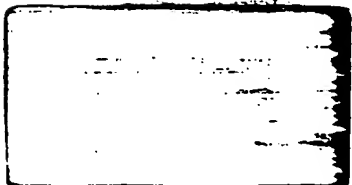
Please acknowledge receipt of the following
by date stamping this card and returning it
to the addressee.

Patent Application of:
Raj Ramanujan, et al.

Title:
High Speed Bus System

Specification _____	Assignment _____
No. of Claims _____	Recording Fee _____
No. of Drawings _____	Authorization to _____
Declaration _____	Charge Dep. Acct _____
Filing Fee _____	Priority Document _____
Info. Disc. Stm. _____	Prelim. Amend _____
Pet. for Ext. of Time <u>X</u>	Req. for Reconsideration <u>X</u>

11/30/94---jmc



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Raj Ramanujan, et al

Serial No.: 08/047,164

Group Art Unit: 2305

Filed: April 12, 1993

Examiner: G. Ray

Title: High Speed Bus System

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November 30, 1994

Date of mailing

Joseph M. Collins

Signature

* * *

Request for Reconsideration Pursuant to 37 C.F.R. § 1.116(a)

Hon. Commissioner of Patents and Trademarks
Washington, DC 20231

Sir:

In response to the Final Office Action dated June 30, 1994, applicant respectfully requests reconsideration in accordance with the provisions of 37 C.F.R. §1.116(a) as follows.

AMENDMENT

In the Claims:

1. (Five times Amended) A bus system, comprising:

(a) a plurality of bus elements, with each of the plurality of bus elements [selectively] making [a request] requests for access to at least one other bus element;

(b) a central unit having a plurality of bus inputs and a plurality of bus outputs, with the central unit selectively coupling at least one of the inputs to at least one of the outputs, the central unit providing for an arbitrated, point-to-point coupling of a particular one of the plurality of bus elements with the at least one other bus element;

(c) a first plurality of unidirectional point-to-point buses for coupling in a first direction the bus elements to the central unit bus inputs;

(d) a second plurality of unidirectional point-to-point buses for coupling in a second direction each output of the central unit to a respective bus element; and

(e) arbitration logic connected to the plurality of bus inputs of the central unit to which the first plural-

ity of unidirectional point-to-point buses connect, the arbitration logic for granting each of the bus elements access to the at least one other bus element through the central unit one at a time based upon the requests from the bus elements.

REMARKS

Reconsidered and reexamination are respectfully requested in the identified patent application.

The Examiner rejected claims 1-29 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter of Applicant's invention.

Applicants have amended independent claim 1 to recite "a plurality of bus elements, with each of the plurality making a request for access to at least one other bus element". Thus, applicants have deleted "selectively". Applicants maintain that as amended, claim 1, and dependant claims 2-29 now particularly point out and distinctly claim the subject matter of their invention under 35 U.S.C. §112, second paragraph and thus the rejection has been overcome.

The Examiner rejected claims 1-19, 30-35 and 37-39 under 35 U.S.C. §103 as being unpatentable over Rodiger et al. in view of Culler.

Applicant's claims 1-19, 30-35 and 37-39 are patentably distinct over the cited references. Applicant's claim 1 as amended, recites ... a plurality of bus elements, with each of the plurality of bus elements making requests for access to at least one other bus element...

The Examiner states that the references "fails to expressly teach the limitation of one bus element making a request for access to at least one other bus element". Further, the Examiner's specific reasons why one skilled in the art would be motivated to apply the teachings of Rodiger and Culler does not address the basis of applicants' invention. The Examiner states that "it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Rodiger to include processor to processor communication...because it is well within the skill of an ordinary person to realize that outputs from a bus can be coupled to a memory and to it's associated processor (Culler teaches that in Fig. 6, elements 544, 548)". Applicants submit that Culler describes a bus arbitration system in which if a processor unit is denied access to the

system bus, and if there is no current conflict in requesting the processor unit's associated local memory, then a request to access the associated local memory, rather than the system bus, is granted. Applicants claim 1 recites on the other hand that the buses are coupled to the central unit via uni-directional buses (see the specification page 6 and claim 1 sections c and d). Therefore, claim 1 requires a unidirectional point-to-point connection to the target bus, rather than through the associated memory as in Culler, and thus has improved access to a target element.

Thus, claim 1 which further recites ... a first plurality of unidirectional point-to-point buses for coupling in a first direction the bus elements to the central unit bus inputs ..., nor ... a second plurality of unidirectional point-to-point buses for coupling in a second direction each output of the central unit to a respective bus element... is neither described nor suggested by the combination of cited references.

The legal standard to be used when evaluating a claim under section 103 is to look at the teachings of the prior art as a whole for what they fairly teach, and neither the reference's general nor specific teachings may be ignored. The prior art must not only disclose each element of

the claim, but must also provide a suggestion or incentive to make the combination made by the inventor. Therefore, applicant's claim 1 is patentably distinct over the references since neither Rodiger nor Rodiger in combination with Culler describe or suggest the above mentioned claimed combination of unidirectional point-to-point buses coupled to a central unit.

Applicant's claims 2-19 are patentably distinct over the cited references for similar reasons as given above with reference to the independent claim upon which they are based.

Applicants maintain that claims 2-4 further limit claim 1 and are not simply a matter of design choice. Each of the three mentioned circuits, the state machine in claim 2, the OR gate in claim 3 and the multiplexer in claim 4, add further patentably distinct limitations to claim 1. For example, the state machine called for in claim 2 (see FIG.s 2 and 3, item 42) "stores the output for one cycle before providing it at it's output". (see specification page 9, Line 24-25). The OR gate called for in claim 3 (see FIG. 2, items 37 and 41) and the multiplexer called for in claim 4 (see FIG. 3, items 37 and 41) along with the logic element 50 provide alternative techniques to combine the point-to-

point signals (See page 5 lines 21-25 for the OR gate for example).

Similarly, applicants maintain that claims 5-19 provide patentably distinct features to Applicants claim 1 and are therefore also allowable over the cited references.

Applicant's claim 30 was rejected by the Examiner for the same reasons as claim 1. Claim 30 recites ... a plurality of first uni-directional point-to-point buses, with one bus coupling each of the central processing units to an input of the combining logic...a plurality of second uni-directional point-to-point buses coupling the output of the combining logic to the central processing units ... plus a ...plurality of central processing units... and ...a shared memory... plus a ...memory controller... Therefore, Applicants maintain that claim 30 is patentably distinct over the cited references for similar reasons to those given above with reference to claim 1.

Applicants maintain that claims 31-32 further limit claim 30 and are not simply a matter of design choice. Each of the mentioned circuits, the combining logic in claim 31 and the multiplexer in claim 32, add further patentably distinct limitations to claim 30. The combining logic called for in claim 31 and the multiplexer called for in claim 32 provide alternative techniques to combine the

point-to-point signals. Therefore the applicant's believe that the Examiner's rejection is improper and should be removed.

Applicants maintain that method claim 33 is patentably distinct over the cited references because claim 33 recites ...coupling each of the bus elements to a central unit with a separate first uni-directional bus... As explained above with reference to claim 1, the cited references do not describe nor suggest the claimed combination of features.

Applicants maintain that dependent claims 34 and 35 are allowable as further limitations on claim 33 above, since claim 34 recites ...a plurality of central processing units and a shared memory. Claim 35 recites the method of ...selecting between the inputs on the first buses...and the bus from the memory.


Applicants maintain that dependent claims 37-39 add further patentably distinct limitations to the claims above, and are therefore allowable. Claim 37 limits claim 2 by providing an alternative technique to combine the point-to-point signals, namely a latch. Claims 38 and 39 limits claim 5 and 1 in a similar fashion and are therefore add patentably distinct limitations.

Applicants note that the Examiner did not reject claims 20-29 over the prior art, and objected to claim 36 as being dependant on a rejected base claim.

Applicants submit that in view of the above amendment and remarks, that claims 1-35 and 37-39 are patentably distinct over the references.

Therefore, reconsideration and re-examination of this application is respectfully requested since the amendment places the application in condition for allowance or better form for appeal by materially reducing the issues on appeal.

Respectfully submitted,


Denis G. Maloney
Reg. No. 29,670
Attorney for Assignee

Date: November 30, 1994

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VIA FACSIMILE

May 13, 1997

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CONFIRMATION COPY

Joan E. Federici
Kenyon & Kenyon
One Broadway
New York, NY 10004

RE: U.S. Application Serial No. 08/047,164
Your Ref: 17380/1206
Our Ref: PD90-0282Cont1

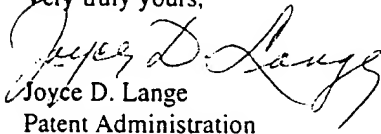
Dear Joan:

As a follow-up to our conversation today, this letter confirms that your firm will file a Petition to Revive for the above-referenced application. I have enclosed copies of the Response to the Final Office Action and a Petition for Extension of Time that were filed from our office.

Should your attorney have any questions, the responsible attorney to contact at Digital is Joanne Pappas. She can be reached by telephone at 508-493-6951.

If I can be of further assistance, please let me know.

Very truly yours,


Joyce D. Lange
Patent Administration

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

CERTIFICATE UNDER 37 C.F.R. 3.73(b)

Docket Number:
17380/1206 (PD90-0282)Application Number
08/047,164Filing Date
April 12, 1993Examiner
G. RayArt Unit
2305Invention Title
HIGH SPEED BUS SYSTEMInventor(s)
RAMANUJAN et al.

Address to:

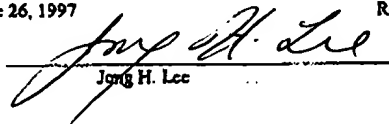
Assistant Commissioner for Patents
Washington D.C. 20231

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Date: June 26, 1997

Reg. No. 36,197

Signature:


Jong H. Lee

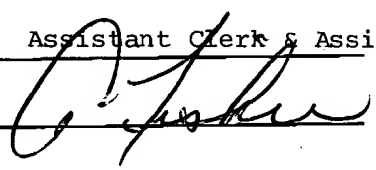
Digital Equipment Corporation certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of assignments from the inventors of the patent application identified above. The assignments were recorded in the Patent and Trademark Office on June 29, 1990 at Reel 5448, Frames 0139-0165. Copies of the recorded assignments in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

EH 272 182419 US

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date : June 25, 1997
Name : Arthur W. Fisher
Title : Assistant Clerk & Assistant Secretary
Signature : 

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DOCKET REPORT ENTRY - PD90-0282CONT1
04/16/98 9:25:57 AM

Action: APP/CON
Action Dated: 30-Jun-1994
Action Name: APPEAL/CONTINUATION
Action Status: C
CHANGED_ID: DEVLIN
Country Code: US
Country Name: UNITED STATES
DATE_CHANGED: 25-Jun-1996
DATE_ENTERED: 21-Jul-1994
Docket Attorney: SUHL
Docket Firm: 999999
Due Date: 30-Dec-1994
ENTERED_ID: WILLETTE
Matter ID: PD90-0282CONT1US
Matter Number: PD90-0282CONT1
Remarks: 6 MONTH DATE/NO EXTENSION
TIME_CHANGED: 145743
TIME_ENTERED: 150117